

**ABSTRACT**

In certain embodiments a soil aerator may include a hinged frame assembly that cooperates with one or more weight transferring systems adapted to permit an aeration subassembly to lift off the ground when an aeration tine impacts a hard obstacle such as a rock in the soil. The weight transferring systems may in the preferred embodiments be calibrated so that only minimal upward force, such as that caused by impact of an aeration tine with a rock, may cause the aeration subassembly to lift thereby significantly reducing or preventing damage to the aeration tines and drive assemblies and substantially prolonging the life of the aerator.

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